

TECHNICAL AND CITIZEN ADVISORY GROUP MEETING RESPONSIVENESS SUMMARY
SOURCE WATER PROTECTION PLAN AND IMPLEMENTATION STRATEGY
MEETING HELD JANUARY 15, 1999

SECTION OF SOURCE WATER PLAN	PAGE NO.	COMMENT/QUESTION	COMMENT BY	RECOMMENDATION/RESPONSE
Overall Document				
General		Support the concept of a voluntary program	8, 16, 17, 18	No change or recommendation is necessary.
General		Feel the plan is well written, but have some concerns.	2	No change or recommendation is necessary.
General		Do not have any concerns, feel the plan is sufficient as written.	1	No change or recommendation is necessary.
General		Voluntary program may not provide enough incentive for communities to participate in developing source water plans.	9	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The State does not have the resources to require and enforce mandatory source water planning. EPA will accept a voluntary approach by the states.
General		IDNR should request the money and staff to implement a regulatory approach to source water protection.	4	No change is recommended in the Source Water Protection Plan and Implementation Strategy.
General		There is no mention of other interested parties, such as the ISU Extension. These could add to the process and help with public relations.	9	The Department will work to develop a list of agencies and other concerned stakeholders that may act as technical or planning resources, and will incorporate the list into the Source Water plan.
General		EPA refers to this program as "Source Water Assessment and Protection" (SWAP), perhaps IDNR should refer to this in the opening paragraph of the document.	2	This change will be made.

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Grammatical		As noted in written comments	2	Changes were made as needed in the Source Water Protection Plan and Implementation Strategy.
General		There is a concern about level of resources and staff dedicated to this program, and the caveat that the Source Water plan will not be implemented without additional money and personnel.	3, 4, 19, 6	In the past, the Department has not placed this program as a high priority and has not requested additional staff to implement this program. The caveats indicate that without the full allotment of source water protection funds from EPA, this program will not be implemented.
General		Pollution prevention should be one of the keys of the source water protection program and should be discussed in the opening pages of the plan.	4	This change will be made. A paragraph will be added to the opening statements of the plan to describe the spirit behind the source water protection plan.
General		IDNR will focus its efforts primarily on the groundwater sources and third-party contractors will do the surface water sources. Should IDNR do a quality control check on the contractors by performing 10% of the surface water source analyses for comparison?	4	Most of the information used to perform the delineation, conduct the local system's contaminant source inventory, and perform the susceptibility analysis will be given to the contractors by IDNR's Geological Survey Bureau (GSB). IDNR staff will review each analysis and the contractor will make any changes requested by IDNR before they are paid for the work, which should eliminate the need for quality control checks.
General	3	IDNR's goal of ensuring that 60% of the population are served by systems with source water protection plans in place will be too difficult to achieve. IDNR should adopt EPA's population protection goal of 50%.	7	No change is recommended in the Source Water Protection Plan and Implementation Strategy. In determining a goal for the State's source water protection strategy, IDNR looked at the populations of the larger water systems in the state. If the majority of those large systems participate in implementing a source water protection plan, the State goal of 60% is achievable.

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SOURCE WATER PLAN	NO.		BY	
General	3	Few public water supplies have zoning authority and local authorities will be unwilling to mitigate pollution if it originates from a local employer. The State should set standards and enforce them.	7	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The IDNR's tendency has been to focus on a voluntary approach directed toward the local level instead of a regulatory approach emphasizing enforceable statewide standards. Keeping the authority at the local level was also a recommendation of the technical advisory group during the development of the State Wellhead Protection Plan.
General	3	The plan should emphasize an integrated approach to source water protection, to include the IDNR, the USDA, the State Department of Agriculture, etc.	11	IDNR will attempt, to the greatest extent possible, to coordinate with other agencies and integrate pollution prevention and source protection programs. This is an excellent goal, and would offer a great benefit to communities attempting to put source water protection measures in place, but there are many resource and institutional constraints.
General		There are other potential funding sources that are not mentioned in the Source Water Protection Plan.	12	The Department will work with other technical assistance providers to develop a list of complimentary funding sources, which will be incorporated into the plan.
General		It appears that most of the technical assistance funds will be used to perform the source water assessments. Systems need additional funding to help in the long-term implementation of source water protection. The plan should note the additional need for technical assistance in the areas of coordination and facilitation of services.	13	IDNR will provide funds for delineating and assessing source waters for every PWS in the state. Implementation of source water protection programs and strategies is voluntary; the reason for this is a lack of state resources to assist systems in implementing these programs. IDNR will work with other technical assistance providers to develop a list of complimentary funding sources, which will be incorporated into the Source Water plan.

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PLAN				
Introduction	3	All players need to be identified, including impacted parties and participants in the source water protection process.	11	A sentence will be added on page 3 to identify the parties impacted and involved in the source water protection planning process.
Plan development		The source water protection guidance mentions the use of a Citizen's Advisory Group. Will this be convened separately? More non-point source advocates should be in attendance.	11	IDNR is convening the Citizen's Advisory Group simultaneously with the Technical Advisory Group at this meeting. Several non-point source interests were invited, but it is difficult to get them to participate in this process.
Source Water Delineation				
	4	Need a reference for the method by which time of travel (to the source) will be estimated, i.e., give the name of the hydrogeologic model used for determination.	2	This information is presented in detail in Appendix 2, of the Iowa Wellhead Protection Plan. A sentence will be added to the Source Water Protection Plan to briefly describe the methods that will be used to determine time of travel for groundwater sources.
	5	By putting off delineation of interstate source waters, the IDNR is putting PWS on the state borders in a bad position as far as communicating source water assessment results to the public through consumer confidence reports. IDNR should focus on multi-state jurisdiction waters first, not last.	7	The 1996 Amended SDWA states that the state needs to "adopt a policy that sets the delineation of the source water protection area to include the entire watershed area upstream of the PWS's intake structure, up to the boundary of the state borders." EPA also recommends, but does not require, that states work with upstream neighboring states to gain assessment information on watershed areas that are outside state boundaries. This topic will be discussed in further detail at the next technical/citizen advisory group meeting.

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	5	The strategy does not adequately	19	Multi-state jurisdiction source waters will be

		address interstate source water issues. IDNR should address assisting water utilities impacted by activities in other states.		discussed in further detail at the next technical/citizen advisory group meeting.
	4	IDNR will use a one-mile radius, at minimum, to delineate source waters located in karst formations. These areas might need additional modeling or a regional approach.	6	IDNR will do as much as possible to refine the source water area, but if there is no hydrogeologic data available, the one-mile radius will be used as a default. Language to this effect will be added on page 4. Also see the karst discussion on pages 31 – 32 of IDNR’s Wellhead Protection Plan.
	4	It should be made clear in the strategy that karst modeling is not definitive and that regional cooperation is necessary in those types of areas.	6	Few PWS use source water obtained from a karst formation in Iowa. For these systems, a caveat will be listed on the source water assessment to explain the difficulties of assessing a karst source water. Also see the karst discussion on pages 31 – 32 of IDNR’s Wellhead Protection Plan.
	6	It is not clear how CSIs will be performed on a Watershed Delineation Area for systems with surface water sources.	2	No change is recommended in the Source Water Protection Plan and Implementation Strategy. On page 6, the plan states that the “surface water source will be shown on a base map and contamination sources within the susceptible zone... will be superimposed over the base map. IDNR will consider all contamination sources... within the susceptible zone of the surface water to be potentially significant.”
Contaminant Source Inventory				
	5	There are other sources of contamination in Iowa aside from those listed, including quarries, gravel, and salt piles.	2	The list on page 5 is not all inclusive. This is a sample of the databases that the Geological Survey Bureau has available. Every database that is applicable will be utilized in performing the CSI.

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	5	Does the list of contaminants	2	See previous recommendation.

		include “all possible” contaminants, or are these the ones known to be leaking?		
	5	Abandoned coal mines should be included in the list of GSB databases.	12	See previous recommendation.
		Will a trained geologist be available to assist the PWS in those areas in which some form of contamination has occurred?	6	The GSB is generally available to assist systems who have experienced contamination, but for working through a source water protection plan and implementation strategy, the PWS will need to hire a geologist if that is found to be necessary.
		The travel budget in Appendix 1 is very small. Will IDNR perform the field reconnaissance of contaminant sources or will that be left to the PWS?	6	IDNR will perform a database search to identify known sources of contamination. This information will be provided to the PWS, who will use this as a starting point for developing a more detailed local contaminant source inventory. Technical set-aside funds are being used to fund assistance to supplies in developing wellhead protection plans.

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Non-point Source				
	3	Encourage public water supplies	8, 2	The Department will work with the soil and water

		to work with soil and water conservation districts. Reference the USDA programs such as the Conservation Reserve Program (CRP) and the Environmental Quality Incentives Program (EQIP), and the Water Protection Fund and Publicly Owned Lakes Program at the state level as resources, in addition to the Section 319 Program that is already referenced.		conservation districts to develop a list of complimentary funding sources, which will be incorporated into the plan.
		The plan does not explain how nonpoint source pollution (agricultural and urban) will be addressed in maps and reports that are sent to the community after IDNR has completed the source water assessment.	4	Nonpoint source pollution will be discussed in further detail at the next technical/citizen advisory group meeting.
		Since agriculture is the primary source of nonpoint source pollution, Section 319 funds should be used for implementation.	10	No change is recommended in the Source Water Protection Plan and Implementation Strategy. Section 319 funds will be used to supplement the source water protection funds provided by the EPA. Section 319 grants will continue to be awarded on a competitive basis, and although projects including source water protection will be viewed favorably, they will not be guaranteed funding through Section 319.

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		Since agriculture is the primary source of nonpoint source pollution, Section 319 funds	10	No change is recommended in the Source Water Protection Plan and Implementation Strategy. Section 319 funds will be used to supplement the

		should be used for implementation.		source water protection funds provided by the EPA. Section 319 grants will continue to be awarded on a competitive basis, and although projects including source water protection will be viewed favorably, they will not be guaranteed funding through Section 319.
Susceptibility Analysis				
	7	The susceptibility analysis may need a “time of year” component since many contaminants are present at higher concentrations during the spring.	2	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The 72-hour time of travel with a 400 foot buffer zone is being proposed for use in susceptibility analysis by several states. A more detailed susceptibility analysis method may not be feasible given the resource limitations of this program.
	7	The 400 foot/72 hour time of travel is an arbitrary measurement. What is beyond this limit may be of greater concern than what is included within the limits.	7	See previous recommendation.
Distributing Assessment Results to Public				
	11	Public participation is essential to the source water protection program’s efficacy.	7	No change is recommended in the Source Water Protection Plan and Implementation Strategy.

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		IDNR should use schools and the ICN to disseminate information about source water protection meetings.	14	IDNR has tried this in the past, and will be examining more non-traditional methods of public involvement to promote the public meetings on the source water protection plan within the next few months. The focus of the IDNR has been primarily on regulation,

				not on outreach/assistance activities.
Voluntary Program for Local Source Water Protection Planning				
		Will there be specific language in the Consumer Confidence Rule to use for reporting source water assessment results?	11	IDNR has adopted the federal Consumer Confidence Rule for state use. The Rule requires that a statement about available source water protection information be placed in the system's CCR. Minimal language to fulfill this provision will be supplied to each system and the source water assessments are completed.
General		There is a potential for conflict between the communities and business that are the primary sources of contamination, like agricultural chemical dealers. The plan does not address how these disputes will be resolved.	9	No change is recommended in the Source Water Protection Plan and Implementation Strategy. Source Water Plan implementation is to be performed on a community wide basis with the involvement of local businesses, farmers, citizens, etc., throughout the process so that the common goal of source water protection precludes major conflicts among the participants. Addressing hypothetical conflicts in a planning document of this magnitude is not feasible.
General		The Clean Water Act's TMDL program should be incorporated into this plan.	3	No change is recommended in the Source Water Protection Plan and Implementation Strategy at this time. The Department may include information about TMDLs in the plan after EPA and IDNR agree upon how this issue will be managed and implemented in Iowa.

SECTION OF SOURCE WATER PLAN	PAGE NO.	COMMENT/QUESTION	COMMENT BY	RECOMMENDATION/RESPONSE
General		Implementation of this voluntary program will require far more financial incentives and technical assistance to accomplish source water protection than is available	5, 19, 13	IDNR hopes that communities will implement source water protection measures on a voluntary basis because we do not have the resources and staff to assist them with this. The technical assistance set-aside funds will be used to offset the shortfall in full

		through Safe Drinking Water Act funds, and the plan should address these needs.		time equivalents available to IDNR by contracting third parties to complete the work that IDNR cannot perform in a timely or technically adequate manner.
Implementation		IDNR should adopt implementation strategies 1 (Source Water Protection Through Local Management) and 3 (Source Water Protection as a “Lens” to Focus Other Federal/State Programs) cited in the EPA Final Guidance for Source Water Protection Plans.	5	No change is recommended in the Source Water Protection Plan and Implementation Strategy. IDNR is utilizing a combination of management strategies 1 and 2 (Source Water Protection Through Enhancement or Broader Integration of Existing State Management Programs). The Department is utilizing its source water set-aside funds to complete the source water assessments for every public water supply in the state. IDNR will provide as much assistance to communities in developing their source water plans as is feasible. In addition, the plan will attempt to integrate source water protection with other available funding sources, such as the DWSRF technical assistance set-aside funds and the 319 nonpoint source funds. IDNR does not intend to utilize aspects of strategy #3 (the “Lens” strategy) until Federal program coordination issues are resolved, including the “TMDL” issue (see above discussion) and interstate coordination issues.

SECTION OF SOURCE WATER PLAN	PAGE NO.	COMMENT/QUESTION	COMMENT BY	RECOMMENDATION/RESPONSE
Implementation		IDNR should target communities with contamination problems for assistance by the year 2000, with participation from Soil and Water Conservation Districts, Division of Soil Conservation,	5	No change is recommended in the Source Water Protection Plan and Implementation Strategy. Systems with contamination problems are eligible for additional financial assistance through the DWSRF program (additional points are given to applications with a source water protection component as

		the U.S. Department of Agriculture, and the private sector.		incentive). Also, communities with contamination will be targeted for technical assistance through a third party contract with the Iowa Rural Water Association for the development and implementation of Wellhead Protection Plans.
Implementation		Commit to amending the Source Water Protection Plan within 18 months to address implementation needs identified through delineation and assessment and evaluation of successful wellhead protection projects	5	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The State will only be approximately one fourth of the way through groundwater delineations and assessments, and implementation needs will not be fully identified. It is possible that this recommendation could be implemented when the State Source Water Protection Plan is updated.
Implementation		Commit to amending the Source Water Protection Plan within 18 months to address the relationship between state enforcement of the Clean Water Act and local source water protection initiatives.	5	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The State will only be approximately one fourth of the way through groundwater delineations and assessments, and local initiatives will most likely not yet be in place at that time. It is possible that this recommendation could be implemented when the State Source Water Protection Plan is updated. The Department may include information about TMDLs in the updated plan after EPA and IDNR agree upon how this issue will be managed and implemented in Iowa.

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Implementation		Commit to amending the Source Water Protection Plan within 18 months to address a comprehensive listing of financial assistance programs and guidelines including the revised plan for 319 funds.	5	As stated previously in the “Nonpoint Source” section of this summary, the Department will work to develop a list of alternate technical assistance providers and funding sources to be placed in the Source Water Protection Plan. Although Section 319 funds will be used to supplement source water protection funds, the grants will continue to be awarded on a competitive

				basis, and although proposals including source water protection implementation will be looked upon favorably, they will not be guaranteed funding. Current levels of financial assistance from both the federal and state governments to address source water protection do not appear to adequately cover the anticipated need to implement this program in an effective manner.
Implementation		Commit to amending the Source Water Protection Plan within 18 months to address estimates of the time line for source water protection with current resources, and proposals for additional state funding to accelerate progress.	5	No change is recommended in the Source Water Protection Plan and Implementation Strategy. The current time line for source water protection implementation is listed on page 14 of the plan. Proposals for additional state funding to assist source water protection efforts will vary from year to year and will not be part of the plan.
Implementation		PWS do not have the resources to pay for the implementation of source water protection strategies.	10, 19	No change is recommended in the Source Water Protection Plan and Implementation Strategy. IDNR understands the financial burden that implementing source water protection strategies places upon the PWS, that is why the program is voluntary. Current levels of financial assistance from state and federal governments to address source water protection do not appear to adequately cover the anticipated need to implement this program in an effective manner.

SECTION OF SOURCE WATER PLAN	PAGE NO.	COMMENT/QUESTION	COMMENT BY	RECOMMENDATION/RESPONSE
Implementation		The State should come up with a plan to pay agricultural producers to farm responsibly with respect to source water protection.	10	No change is recommended in the Source Water Protection Plan and Implementation Strategy. Implementation is a community-based effort, and agricultural producers should be included on the source water protection committee. Education and support from the community are considered to be the most effective tools for changing perceptions and

				directing change. In addition, IDNR is using set aside funds from the DWSRF to assist communities in completing their source water protection plans. Current levels of financial assistance from both the federal and state governments to address source water protection do not appear to adequately cover the anticipated need to implement this program in an effective manner.
Implementation		Has IDNR talked to systems about what is actually useful in the implementation of a source water protection plan?	6	No, but we will look at the evaluations of our third-party contract to assist PWS in wellhead protection plan development to find out what works for implementation purposes. It has not been decided yet whether IDNR will review submitted source water protection plans. Technical outreach on a general basis has been done via speeches and written articles, but it is uncertain what percentage of systems have been impacted by these efforts.

Responsiveness Summary for Technical/Citizens
Advisory Group Meeting, held April 29, 1999
Source Water Assessment and Protection Program

- 1. Comment** **If the source water protection area changes, will IDNR come back and reassess the delineation/assessment document?**

Discussion Should the source water protection area for a system change significantly, IDNR, upon notification of the change, will update the original assessment to reflect the most current information.

Recommendation **Add this discussion to the Source Water Assessment and Protection Plan.**

- 2. Comment** **If Town A has a good well log and hydrogeological data, and Town B five miles away has nothing, will data from Town A be used for delineation/assessment purposes?**

Discussion IDNR will use the best information available to perform the assessments. If local data is unavailable, the Department will make use of the best available regional data.

Recommendation **No action.**

- 3. Comment** **How will delineations be performed for systems using groundwater under the influence of surface water?**

Discussion IDNR is proposing to perform separate assessments on the groundwater source and the surface water source affecting the groundwater source, and then combine these assessments to reflect the true situation. For example, the time of travel radii for the groundwater source would be shown on a map that would also show the watershed of the surface water source. All potential contaminant sources within the watershed and time of travel radii would be shown on the map. The Department will not be utilizing conjunctive delineation as it is described in the EPA Guidance document because we do not currently have the capability to assess the potential for interaction between surface and groundwater sources outside of the groundwater under the influence of surface water classification. IDNR is proposing to use the source categories set forth by EPA: Groundwater, surface water, and groundwater under the influence of surface water, and assessments will be performed for these categories.

Recommendation **No action.**

- 4. Comment** **Looking at Table 1, there are two different categories: “Agricultural Drainage Facilities” and “Agricultural Drainage Wells.” What is the difference between these two?**

- Discussion Agricultural drainage wells are different from agricultural drainage facilities. By the latter term, IDNR was attempting to denote facilities that might have drainage of an agricultural nature, like a livestock confinement.
- Recommendation** **“Agricultural Drainage Facilities” will be changed to “Permitted Agricultural Facilities.”**
5. **Comment** **People may not understand what “Soils (by Public Land Survey System type)” means since these are commonly known as “county soil surveys.”**
- Discussion This may be true, it is not a problem to make this change.
- Recommendation** **Change the phrase “Soils (by Public Land Survey System type)” to “County Soil Surveys.”**
6. **Comment** **Why are sinkholes excluded from Table 3, Land Use Risk?**
- Discussion Sinkholes are a potential pathway for contaminants, but they are not technically a land use. Sinkholes are listed in Table 1, Potential Contaminant Sources Provided by IDNR. If there are sinkholes near the wellhead, the aquifer vulnerability score will reflect their presence and raise the total score accordingly to indicate the relative risk.
- Recommendation** **No action.**
7. **Comment** **Do you have data on bulk fuel storage facilities? They should be listed as a potential contaminant source.**
- Discussion There is data available on bulk fuel storage facilities, and it would not be a problem to add these to Table 1.
- Recommendation** **Add “Bulk Fuel Storage Facilities” to Table 1.**
8. **Comment** **It seems that the word “risk” should be changed to “potential risk” when speaking of contaminant sources.**
- Discussion IDNR agrees on this point.
- Recommendation** **IDNR will use the phrase “potential risk” when speaking of possible contaminant sources.**
9. **Comment** **There are mitigating factors, such as best management practices, which could be used by the agricultural community to lower the risk of agricultural practices. These should receive a greater emphasis in this document.**

Discussion	Best management practices are considered part of the implementation process of source water protection planning. IDNR would encourage systems to implement best management practices as part of Phase 2 implementation, but developing these type of practices will not be performed as part of Phase 1 assessment.
Recommendation	No action.
10. Comment	The change in buffer distance along the shore of a surface water from 400 feet [in the last source water document draft] to 1,320 feet [as indicated in this draft] is a positive change, but it should be emphasized that this buffer (or set-back distance) is not a property ownership criterion.
Discussion	IDNR is amenable to this change.
Recommendation	A sentence emphasizing that the buffer zone is not a property ownership criterion will be added to the first paragraph on page 13 of the document.
11. Comment	The term “buffer” is used to describe different types of things within a land use context. Could a different word or phrase be used to denote the susceptible area of a surface water source?
Discussion	It was decided during national meetings on state source water protection that the word “buffer” would be used to describe the susceptible area along the flow boundaries of surface water sources.
Recommendation	No action.
12. Comment	Should the strategy incorporate a mention of how “ephemeral streams” need to be treated with respect to determining the susceptible area 72 hours upstream of the drinking water intake? How will IDNR define “average flow conditions?” How many miles upstream will 72 hour time of travel include?
Discussion	It is expected that ephemeral streams within the 72 hour time of travel zone would be included within the susceptible area for systems using a surface water source. A 72 hour time of travel distance will vary with the seasons and weather conditions, but we will calculate the average flow using a United States Geological Survey hydraulic model. It is difficult to define all the vagaries of overland flow, interflow, and groundwater flow within the strategy. The general description of the Phase 1 susceptibility analysis provided in the current plan is a good starting point, and should be sufficient.
Recommendation	No action.
13. Comment	How many contaminant source inventory points will be placed on a given map?

Discussion	The number of contaminant source inventory points will vary among systems, but the assessments for groundwater systems will include contaminant source inventory points within the 2-, 5- and 10-year time of travel radii. Surface water assessments will include all of the potential contaminant sources within the watershed. Assessments for systems utilizing groundwater under the influence of surface water will include the potential contaminant sources for the groundwater and surface water sources as described, on one map if possible. If a map becomes too cluttered due to the number of potential contaminant sources shown, a series of maps will be provided for clarity.
Recommendation	No action.
14. Comment	References to work provided by IDNR should be amended to “IDNR or contractor,” since contractors will be performing the majority of assessments for surface water systems and some groundwater systems will be working on wellhead protection plans with a contractor.
Discussion	IDNR is amenable to this change.
Recommendation	Where work provided by IDNR is described in the document, a phrase will be added where appropriate to indicate that the work may be provided by a contractor in lieu of IDNR.
15. Comment	A 72-hour time of travel susceptibility zone does not seem sufficient to protect against a cryptosporidium outbreak.
Discussion	It is recognized that cryptosporidium presents a constant risk to surface water sources and groundwater sources under the influence of surface water, and some risk to vulnerable groundwater sources. Cryptosporidium may be released from point or non-point sources, and it does not appear that a change in the susceptibility zone would decrease the risk of a cryptosporidium outbreak.
Recommendation	No action.
16. Comment	Would it be possible to add some information regarding the health consequences of specific risks associated with specific contaminants to the assessment report that will be sent to the public water supply operator?
Discussion	The contaminants identified in the assessment reports are potential contaminants, and many different health consequences may result from a few contaminant types. It would be difficult to categorize potential health effects attributable to specific contaminants and remain confident that the correct information was being relayed to the public without causing unjustified fear.
Recommendation	No action.

- 17. Comment** **Beyond notifying the public water supply operator and the mayor of the assessment results, is there any way to integrate public participation into the source water assessment process?**
- Discussion When the area-wide public information meetings are scheduled to discuss the area's assessment results, IDNR will invite interested citizens to attend through the use of targeted press releases. Systems will be encouraged to utilize the Consumer Confidence Report (CCR) to make their customers aware of local source water protection planning opportunities and activities.
- Recommendation** **No action.**
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- 18. Comment** **There are some concerns regarding the local media and their interpretation of the susceptibility analysis table provided in the assessment report.**
- Discussion The Department's goal is to produce an assessment report that is of use to the water supplies and communities, and for that reason, details such as the name and locations of potential contaminant sources must be included in the report. It will not be possible to control the media's interpretation of assessment reports.
- Recommendation** **No action.**
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- 19. Comment** **It seems that the Soil and Water Conservation Districts and water operators at the local level have the responsibility to integrate their programs and resources, but it is important that the water operator be the point person in source water protection activities.**
- Discussion There was some disagreement on this point, as one participant felt that it was more important to have the Soil and Water Conservation Districts in charge of source water protection activities. Since advisory group members involved in the development of the Wellhead Protection Plan indicated their strong preference for the facilitation of wellhead and source water protection activities through the public water supply operators, IDNR will support this position.
- Recommendation** **No action.**
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- 20. Comment** **The local task of implementation is extremely resource intensive and the implementation strategy does not create confidence that adequate resources and technical assistance will be provided to the local implementation team to accomplish meaningful source water protection.**
- Discussion Several participants felt that looking for funding from IDNR is counter-productive, and that funding consortiums should be used to take advantage funds available through agencies other than IDNR for source water protection activities. An integrated approach is necessary to make the most of the available funds, and IDNR will work to ensure that systems requesting financial assistance for source water protection activities are aware of the various opportunities for funding.

Recommendation No action.

- 21. Comment** Land use planning and the use of ordinances are unpopular, and the myriad of issues requires local level integration. State agencies need to follow suit and provide a long-term commitment to greater inter-agency coordination, or it will never happen.

Discussion It was stressed by one participant that there is still a need for one point person in conducting source water protection activities. An environmental coordinator at the county level would help to ensure proper environmental coordination.

Recommendation No action.

Written comments

- 22. Comment** Other than making the results available to the public there are no indications of public involvement in the program. Our interpretation of the federal guidelines are that public participation is a key element. Public participation needs to happen throughout the process to ensure a successful watershed protection plan.

Discussion Public involvement in source water protection planning is a key element, but this is something that must be accomplished at the local level. IDNR will encourage systems to emphasize public involvement, as we do on Page 3 of the plan, but ultimately this will be decided by the community and the local source water protection team.

Recommendation No action.

- 23. Comment** With some [EPA] deadlines already incurred, it would be more prudent to accept the EPA guideline of 50% of the population served by systems with protected source water rather than adopting a state goal of 60%.

Discussion In determining a goal for the State's source water protection strategy, IDNR looked at the populations of the larger water systems in the state. If the majority of those large systems participate in implementing a source water protection plan, the State goal of 60% is achievable.

Recommendation No action.

- 24. Comment** The sentence, "Local regulations to manage potential contamination sources will be left to the PWS or other local entities with zoning jurisdiction," implies that PWS can establish zoning regulations. Public water supplies may recommend or advise persons with zoning authority, but they do not establish zoning regulations.

Recommendation The phrase, “the PWS or other” will be removed from this sentence on Page 3 of the plan.

25. Comment The availability of Drinking Water State Revolving Fund (DWSRF) loan funds is used as an incentive for public water supplies to participate in the local implementation of local source water protection plans. Are public water supplies the only group who may apply for DWSRF funding?

Discussion The Amended Safe Drinking Water Act of 1996 has a special provision for DWSRF projects related to source water protection; up to 10% of a given year’s capitalization grant plus state match may be used for land acquisition to protect a system’s source water. In addition, when DWSRF applications are scored to prioritize projects for funding, additional points are given to those applicants indicating that they will prepare a source water protection plan as part of the DWSRF project. Public water supplies or their authorized agents are the only entities who may apply for DWSRF loan funds.

Recommendation No action.

26. Comment The Department has indicated their willingness to participate in interstate partnerships. We would encourage IDNR to provide a leadership role by organizing partnerships with other states.

Discussion At present time, IDNR does not have the resources dedicated to this program to devote staff time to organize partnerships with other states. The Department will attempt to assist individual systems in their interstate source water protection endeavors as resources allow.

Recommendation No action.

27. Comment On Page 8 of the plan, it states that a “source water protection plan must include a Phase 2 CSI since the Phase 1 CSI contains unverified data.” This contradicts Page 4, paragraph 4, which states, “delineations may be used by PWS without refinement as part of their local protection plan, but PWS may wish to consider Phase 2...”

Recommendation In the specified sentence, the word “must” will be changed to “may.”

28. Comment There are several places throughout Pages 8-10 where it is indicated that something is voluntary, but then goes on to say that it must be included in the source water protection plan. This is very confusing.

Discussion In looking through Pages 8-10, there were only two uses of the word “must,” and one of them was addressed in the previous comment.

Recommendation On Page 10, the word “must” in the first sentence of the fourth paragraph will be changed to the word, “may.”

- 29. Comment** **On Page 12, third sentence of the last paragraph, add, “The analysis will determine the susceptible area as the distance equivalent...”**
- Recommendation** **Implement change as specified in comment.**
-
- 30. Comment** **There are a few references to a “local source water protection planning committee,” but this is not defined in the document.**
- Discussion Although the assessment information provided by the Department will be directed toward the public water supply systems, IDNR will encourage the development of local source water protection planning committees to facilitate Phase 2 work and assist with management planning. The composition of local committees will vary among systems.
- Recommendation** **Add a statement to the plan to define and encourage the use of local source water protection committees.**
-
- 31. Comment** **On Page 14, it is indicated that information will be on the IDNR website as soon as it is “feasible.” This is pretty open-ended, can we evaluate what “feasible” is and adopt a timeline?**
- Discussion A timeline for installation of source water protection information on the IDNR website has been adopted. The current work plan indicates that information should be on the website during the second year of source water assessments. Assessments are currently underway, and data should be on the website during FY2001.
- Recommendation** **A statement will be added to the plan to explain that assessment data will be on the website within two years of the initial assessments.**
-
- 32. Comment** **Could a brochure like GSB’s “Wellhead Protection in Iowa” be developed for surface water systems and passed out when the groundwater brochures are distributed? Or could a new brochure be developed to include both types of systems?**
- Discussion The “Wellhead Protection in Iowa” brochures have already been printed, so incorporating both types of systems into one brochure will not be possible. There are only 34 surface water systems in Iowa at this time, and each of these will be on a different timeline for source water assessment. Since there are four contractors assessing 24 systems throughout the state, and the remaining 10 surface water systems are to be assessed after the groundwater assessments are complete, it is unlikely that the public meetings held for groundwater assessments will correspond with the public meetings held for source water system assessments. The development of a brochure for surface water systems is not feasible at this time.
- Recommendation** **No action.**

- 33. Comment** **Goals and milestones identify measures for evaluating source water protection plans put in place in the state, but they do not evaluate the source water assessment portion of the strategy. It would seem goals and milestones should be established for both components of the strategy.**
- Discussion The ultimate goal of the state source water assessment and protection plan is to ensure that 60% of Iowa citizens served by public drinking water systems are utilizing a protected source of water. The goals and milestones were written to mark progress toward this goal. The implementation table on Page 20 lists the timeline for the assessment portion of the plan.
- Recommendation** **No action.**
-
- 34. Comment** **How do the work plan goals track with the goal of 60% protection in Iowa by 2005?**
- Discussion According to the work plan, assessments should have finished in FY2002, leaving three years to get source water protection plans in place for 60% of the population served. Because of delays in EPA funding, the work plans are approximately one year behind, pushing the final assessments to FY2003. This still leaves two years to achieve the 60% protection goal.
- Recommendation** **No action.**
-
- 35. Comment** **On Page 16, it is mentioned that a contractor will complete a minimum of 310 source water protection plans by 2005. Will this meet the 60% protection goal set by IDNR in the plan?**
- Discussion The 310 source water plans completed by IDNR's contractor will help achieve the 60% population goal, but it is unlikely that these plans alone will reach the target. If largest public drinking water systems in Iowa were to commit to preparing source water protection plans, the goal would easily be met.
- Recommendation** **No action.**

Source Water Assessment and Protection Plan
 Technical/Citizens Advisory Group Meeting Attendees
 April 29, 1999

Name	Affiliation	Occupation	Telephone	Address
Karen Nachtman	Iowa Association of Municipal Utilities	Water Services Coordinator	515/289-1999	1735 NE 70 th Ave., Ankeny, IA 50021
Jon Martens	Atlantic Municipal Utilities	Director of Water Operations	712/243-1395	15 W. Third Street, Box 517, Atlantic, IA 50022
Jennifer Hemingway	Iowa Rural Water Association		515/283-8214	100 Court Ave., Des Moines, IA 50309
Robert Boyd	U.S. Geological Survey	Hydrologist	319/358-3616	PO Box 1230, Iowa City, IA 52245
Linda Kinman	Iowa Association of Water Agencies	Executive Director	515/323-6299	2201 Valley Dr., Des Moines, IA 50321
Brooke Timmons	Des Moines Water Works	Public Affairs Specialist	515/283-8607	2201 Valley Dr., Des Moines, IA 50321
Tom Oswald	NRCS/IDNR Liaison	Non-Point Specialist	515/242-6149	Wallace State Office Building, Des Moines, IA 50319
Roger Link	NRCS	Water Quality Specialist	515/284-4371	210 Walnut, Federal Bldg, Room 693, Des Moines, IA 50309
Roy Overton	Izaak Walton League	Physician	515/255-1951	622 SW 59 th , Des Moines, IA 50312
Randy Lane	IDNR, Field Office 5	Environmental Specialist	515/281-9074	607 E. Second St., Des Moines, IA 50309
Rick Robinson	Iowa Farm Bureau	Local and Environmental Affairs	515/225-5432	5400 University Ave., West Des Moines, IA 50266
Kevin Stocker	Iowa Association of Municipal Utilities	Water Services Specialist	515/289-1999	1735 NE 70 th Ave., Ankeny, IA 50021
Mark Duben	Howard R. Green	Engineer	515/278-2913	4685 Merle Hay Road, Suite 106, Des Moines, IA 50322
Mark Dickey	Iowa Rural Water Association	Executive Director	515/283-8214	100 Court Ave., Suite 409, Des Moines, IA 50309

Responsiveness Summary for Public Meetings on Source Water Assessment and Protection Program

Urbandale, IA
June 9, 1999

- 1. Comment** **Will surface water systems be included in the informational public meetings held around the state as assessments are completed?**

Discussion This has not been decided yet. Surface water assessments will either be performed by contractors, or by the Geological Survey Bureau (GSB) after they complete the groundwater systems. The contractors performing surface water assessments are required to hold informational meetings to discuss the results of the assessments, so these systems' meetings will be held at the contractor's discretion. Informational meetings for the surface water systems whose assessments have been performed by GSB may require meetings in addition to the area-wide meetings being conducted for the groundwater systems.

Recommendation **Add this discussion to the Source Water Assessment and Protection Plan.**
- 2. Comment** **How will areas of farm chemical storage that are used on a seasonal basis be assessed in the contaminant source inventory?**

Discussion These areas will be considered a source of potential contamination even if they are not currently in use, since contaminants may have leached through the soil and into the groundwater during chemical storage.

Recommendation **No action.**
- 3. Comment** **Do chemicals break down below the ground surface, e.g., if atrazine leaches into a confined aquifer, could someone 50 miles away be pumping it out of their well?**

Discussion The break down of chemicals depends on different environmental factors, like oxygen level and the presence of bacteria, but chemicals such as atrazine do not necessarily break down in a short period of time.

Recommendation **No action.**
- 4. Comment** **Looking at the computer model showing the flow lines, the five-year time of travel line is only one-half mile away from the well. Is that correct; groundwater only flows one-half mile in five years? That surprises me!**

Discussion Yes, that is correct.

Recommendation **No action.**

5. Comment Will the names of businesses be included as potential contaminant sources in the report sent to water supplies? There is general concern about listing the owner of the business, but not the address.

Discussion Yes, the names of businesses will be included to make the information meaningful to the readers of the report. The location of the business will be shown on the map provided to the water supply, but this location is not always correct. This is something that should be checked during Phase 2 inventory of potential contaminant sources.

Recommendation No action.

6. Comment People may not understand what the high vulnerability of a water source has to do with a 10-year time of travel when 10 years is so distant from the present.

Discussion The vulnerability determination lets the water supply know what potential the water source has for contamination. A contaminant may have already been leaking, leaving less than 10 years to actually prepare for its appearance in the source water. The 10-year time of travel determination is to help water supplies plan for the future, and to give them time to make a decision about what to do during that 10 years before contamination reaches the well.

Recommendation No action.

7. Comment What about sources of contamination not listed in the plan? For example, the dumping of oil down storm drains; something like that would not show up in a database search. What about auto junkyards? Is there any way to incorporate local knowledge into the assessment?

Discussion This type of local knowledge should be addressed in Phase 2 of the assessment. The Iowa Department of Natural Resources (IDNR) will use information available through several databases to prepare the Phase 1 assessment. Public water supplies will be asked to use this Phase 1 assessment as a starting point for local source water protection planning. Local knowledge should be used to refine the Phase 1 assessment into a Phase 2 assessment.

Recommendation No action.

8. Comment Is Phase 2 required or is guidance available?

Discussion Phase 2 is not required, but we have Phase 2 guidance available in the form of the Wellhead Protection Plan and other documents.

Recommendation No action.

9. Comment Performing a Phase 2 assessment is a lot for a community to handle, financially. Is there money available, such as in the form of grants? This is a major issue; we do not have the resources to do this. I would encourage IDNR to think creatively about how to involve the citizens in this process. Other things will kick in as source water protection comes into play, like the groundwater monitoring network, identifying tile lines, etc. Phase 1 should generate interest, which would then carry through to Phase 2. There may be “local experts” on different issues. Their participation should be included in Phase 1, which seems to be the creation of IDNR.

Discussion Currently IDNR does not have funds available to water supplies for Phase 2 implementation. There may be funds available from other sources, and we are working to include a list of those sources in the Source Water Assessment and Protection Plan. Dividing the assessment process into phases was the idea of the Environmental Protection Agency (EPA), who will approve the State’s plan. EPA wanted a clear division between what IDNR will provide and what is expected on a voluntary basis from the water supplies. IDNR does not have the resources to perform field surveys, which would incorporate the knowledge of those “local experts,” that is why this step is left to the public water supplies desiring to put source water protection measures into place. It is IDNR’s intent to generate public interest through the public meetings which will be held as the assessments are completed, area by area. The public interest will then encourage water supplies to participate in source water protection planning, with the assistance of interested community members.

Recommendation No action.

10. Comment The requirement for source water assessment seems to be the model for EPA’s Watershed Protection program, it appears that everyone should be jumping on this and using it to prepare for the wave of the future.

Recommendation No action.

11. Comment Where does wastewater treatment fall within the land use risk table?

Discussion Wastewater treatment would fall under “Waste Disposal.”

Recommendation No action.

12. Comment What if a community decides that something which carries relatively low risk on the table, such as a golf course, poses a threat to their water supply that the land use risk numbers do not reflect?

Discussion The land use risk and vulnerability numbers are to be used as a method of prioritizing risks. If the community feels that the risk numbers do not reflect their priorities, then it is their prerogative to re-assign the priorities.

Recommendation No action.

- 13. Comment** **Looking at the sample contaminant source inventory provided in the plan, the contaminant table will be the same for every small community in the state.**
- Discussion Not necessarily. The town of Cherokee, for example, has a low aquifer susceptibility, so the risk numbers would be lower than, say, the risk numbers for an unprotected alluvial aquifer. The information provided will be community-specific, but it is also relative.
- Recommendation** **No action.**
- 14. Comment** **Looking at the land use risk tables, it doesn't seem that golf courses and quarries should have the same risk level.**
- Discussion This table is taken from EPA documents, but it is still up to the community to decide what the land use risk priorities are. This table is just to give the community an idea of the relative risks—there may be special circumstances for specific communities that IDNR is not aware of at the time of the Phase 1 assessment.
- Recommendation** **No action.**
- 15. Comment** **A major highway runs across the top of our watershed, who knows what contaminants might run through a major highway?**
- Discussion The highway will be identified in the source water assessment map as a potential contaminant source, along with railroads and pipelines. Dealing with an emergency spill on a highway should be part of your emergency response plan; there is not much to do but react quickly when a spill occurs, depending on the circumstances.
- Recommendation No action.
- 16. Comment** **Would it be possible to use Iowa State University's land use gap analysis—it has good data for many parts of the state, though it is not complete.**
- Discussion This is a possibility, because we feel our land coverage database is somewhat outdated. It hasn't been decided yet which land use database IDNR will utilize for the assessments.
- Recommendation** **No action.**
- 17. Comment** **Is there any way to know which pipelines have flowing material in them? Some places in Iowa have stored things which corroded the pipelines and then leaked—this is a problem.**

Discussion IDNR is unaware of a database which would contain this information; if so, the Department does not have access to it.

Recommendation No action.

18. Comment Who permits pipelines?

Discussion These are permitted by the Department of Commerce. Generally, the Emergency Response section of IDNR would become involved if there were a problem with a pipeline.

Recommendation No action.

19. Comment Once a potential problem like a highway is identified, would a community be able to re-design things so that every time an emergency occurred, it would not have to be a reactive response to a problem?

Discussion It might be helpful to have the Department of Transportation look at the plan and make a recommendation to communities to help them in planning.

Recommendation A copy of the plan will be sent to the Department of Transportation, and IDNR will ask for a specific recommendation on this topic, which will then be added to the Plan.

20. Comment It was emphasized that delineation goes to state boundaries. Working with the Iowa Great Lakes, things are coming from Minnesota that are a problem. What can supplies do about situations like this?

Discussion Federal law states that the States' assessments are limited to the state boundaries, but the community is encouraged to work with inter-state groups when possible. IDNR will assist with these situations to the greatest extent possible.

Recommendation No action.

21. Comment For reporting purposes, how will consecutive systems be notified of this information? Will the assessment for the supplier be copied to the consecutive systems?

Discussion As part of the information supplied to consecutive systems for Consumer Confidence Reporting purposes, this information should be supplied to consecutive systems by their suppliers.

Recommendation No action.

Storm Lake, IA
June 10, 1999

- 22. Comment** **If a supply's source water is contaminated, is that system eligible for Drinking Water State Revolving Fund loan money?**
- Discussion The scoring system for Drinking Water State Revolving Fund loan applications is listed in Chapter 44. Since the scores are relative each year, depending on the applicant pool, the funding of a particular project is never guaranteed, but systems with Maximum Contaminant Level violations are given extra points which should put them at the top of the fundable list.
- Recommendation** **No action.**
-
- 23. Comment** **Is the Dakota Sandstone aquifer a confined aquifer or an unconfined aquifer?**
- Discussion The Dakota is mostly a confined aquifer with a few exceptions where it outcrops or the overlying material is thin or permeable. The Dakota outcrops in west central Iowa in Guthrie Co. (Springbrook State Park area), Cass Co. near the town of Lewis. In northwest Iowa, the drift is thicker and general the Dakota is confined by drift or by younger Cretaceous shale and limestone. The exception is the Sioux City, Sargent Bluff area in Woodbury County. The drift cover is also thin in a few areas in southwestern Iowa, notably Montgomery County where there are Dakota outcrops.
- Recommendation** **No action.**
-
- 24. Comment** **Are things like well construction the secondary containment of underground storage tanks addressed in the threshold risk table?**
- Discussion Since GSB is unable to perform field verifications of Phase 1 data, information on the construction of the well and details about particular sources of potential contamination will be left to the water supply to determine during the Phase 2 assessment
- Recommendation** **No action.**
-
- 24. Comment** **Is source water protection the same thing as wellhead protection?**
- Discussion Wellhead protection was initially promoted by the EPA to protect systems using groundwater as a source water. The concept evolved to include those systems using surface water sources, and at that point, the program became known as the source water protection program. There is still some distinction between source water protection and wellhead protection at the EPA level, but essentially the end goal of both programs is the same; to protect drinking water sources from future contamination.
- Recommendation** **No action.**

- 25. Comment** **Why isn't there more of a "polluter pays" philosophy in this plan? My water supply was contaminated by an industry, so why shouldn't they help the city pay for cleanup and source water protection measures?**
- Discussion Where possible, the Department makes an attempt to identify sources of contamination, but this is usually a difficult prospect. This frequently becomes a legal battle that can take years to reach resolution. In addition, the major goal behind source water protection programs is protection—this is not always a solution to the problems you already have, but it is a planning exercise to help ensure that additional problems do not occur in the future.
- Recommendation** **No action.**
-
- 26. Comment** **Has IDNR ever talked with the Department of Transportation about creating highway signs that say "Entering" or "Leaving a Source Water Protection Area?" The Department of Transportation is not usually amenable to towns placing their own signs on the highway, so I am wondering if it would be possible to talk with them about creating and placing signs in source water protection areas approved by IDNR.**
- Discussion This is a really good idea, IDNR has not considered this possibility before, but we will see what can be done with regard to this issue.
- Recommendation** **No action.**
-
- 27. Comment** **If there are discrepancies between the assessment performed by GSB and an assessment performed by a consultant, which assessment will govern future activities?**
- Discussion The Department recognizes that hydrogeologic assumptions may vary and that source water protection areas may vary as a result. If two assessments are performed by different entities and there is a discrepancy between the source water protection areas, the area developed using the most realistic assumptions or most accurate data should be used. Since this is a voluntary program, the final decision on which assessment to use is left to the water system. IDNR will assist in reviewing the assumptions or data upon request when it is possible.
- Recommendation** **Add this discussion to the source water plan.**

Iowa City, IA
June 15, 1999

28. Comment In the future, will permitting of other, non-drinking water related activities reflect the time of travel radii that have been developed for public water supplies?

Discussion It is possible that as source water protection planning becomes more prevalent and more systems use the data provided by the assessment to make planning decisions for the community, that other permitted activities may not be allowed within a public water supply's time of travel radii. At this time, however, these types of planning decisions, e.g., whether or not to locate an animal confinement operation within a community's five-year time of travel zone, will be left to the local community and/or zoning authority.

Recommendation No action.

29. Comment How does the source water assessment information relate to the Consumer Confidence Reporting (CCR)?

Discussion The source water assessment information is to be placed in the CCR when it has been provided to the public water system. As the agency responsible for performing the assessments (or paying a contractor for the service), IDNR has the responsibility for providing specific language that may be used by the supply in its CCR. This language will be included in the short report that will be provided to each water system by GSB. Surface water systems will receive this language from the contractor performing their assessment, or from the Department. Since the first set of assessments will not be complete until late 1999, source water assessment will not be required in the first CCR, due for all community water systems in October of 1999.

Recommendation No action.

30. Comment This document is for "Source Water Assessment and Protection." This document talks a lot about assessment, and not much about protection. Where does the protection come in?

Discussion This document is being prepared to describe our source water assessment and protection strategy and implementation program. IDNR, at EPA's suggestion, has broken the assessment program into two Phases to differentiate between the information that IDNR or its contractor would provide to each public water supply and the information that would be supplied on a voluntary basis by the systems implementing source water protection measures. As it is described in the plan, the actual implementation of source water protection measures will occur on a voluntary basis. The plan describes the guidance that IDNR will provide to those systems implementing source water protection, and provides some technical assistance through the contracted provision of wellhead protection assistance. IDNR will emphasize protection during the public

meetings held around the state following completion of the assessments, but again, this part of the plan is not mandatory.

Recommendation No action.

31. Comment Since I am a subdivision, there are many factors which will influence my risk score, over which I have no control. What is the state going to do to help me when all of my risk numbers turn out to be relatively high and my customers are upset?

Discussion The Phase 1 source water assessment is a starting point for local source water protection implementation. As your customers become aware of the risks associated with your source water, this may influence them to become part of a community-based source water protection effort. IDNR will assist you to the greatest extent possible if you are interested in implementing source water protection measures. A contracted technical assistance provider may be able to assist you at no cost to you.

Recommendation No action.

32. Comment Is there any provision for the source water protection of private water systems?

Discussion IDNR regulates public water supplies. Private water systems are not included in this plan, though protection measures applied to the aquifers used by private systems may benefit their consumers.

Recommendation No action.

33. Comment If the IDNR insists on increasing the requirements for public water systems, people will no longer be able to afford drinking water.

Discussion The Phase 1 source water assessment is being funded through a grant to the state from the EPA, at no cost to the public water supplies. Follow-up work on Phase 2 assessments or management strategies for source water protection purposes by public water systems is voluntary. The implementation of source water protection measures will be performed on a voluntary basis. If a system should decide to raise rates to pay for source water protection implementation, it would be the choice of that particular water system, and would hopefully be supported by the consumers.

Recommendation No action.

34. Comment Could you detail exactly what legal authority a system would have to force a gas station out of their community?

Discussion Most water supplies do not have zoning authority, but municipalities or counties do. It is unlikely that a water supply could force an existing gas station out of the community, but it might be possible to prevent a new gas station from locating within a supply's source water protection area, with the use of zoning. Community involvement could be very beneficial in a case such as this.

Recommendation No action.

35. Comment Do hog confinements report to you on their discharge?

Discussion This would most likely be covered by the National Permit Discharge Elimination System (NPDES) or manure management permit. The water supply section of IDNR does not handle these types of permits, but the discharge is reported.

Recommendation No action.

36. Comment Are older gas stations required to monitor for storage tank leaks?

Discussion All gas stations were required to update their underground storage tanks to new standards by December of 1998. Stations that did not comply are no longer permitted to operate. It is possible that old underground storage tanks are still in the ground, but these tanks should not currently be in use.

Recommendation No action.

37. Comment You stated that the source water assessments would be performed by area. When will our area be assessed? Why is northwest Iowa the first area to be assessed?

Discussion This area will be the fourth of six areas to be assessed. It is likely that your area will be completed in late 2000 or early 2001. Northwest Iowa is estimated to be the most vulnerable, with the most shallow alluvial wells and contamination problems; that is why assessments for northwest Iowa are being given a high priority.

Recommendation No action.

38. Comment How are you weighing factors like industries upstream affecting downstream users?

Discussion All of the potential contaminant sources within a supply's watershed will be shown on the map prepared for the system by GSB. The susceptible area (72-hours time of travel distance upstream, and one-quarter mile buffer along the stream edge) will also be shown on the map. The type of industry and discharge, and the distance from the intake will decide what priority should be given to protecting the source water from that potential contaminant.

Recommendation No action.

- 39. Comment** **Could you define “CCR,” “TNC,” and “NTNC?”**
- Discussion “CCR” stands for Consumer Confidence Report, an annual report on drinking water quality that will be prepared by each community, and made available to each customer, beginning in 1999. “TNC” stands for Transient Non-Community water supply. TNCs supply water to at least 25 people at least 60 days per year, but not the same 25 people. Typical TNCs include restaurants, highway rest stops, parks, etc. “NTNC” stands for Non-Transient Non-Community water supply. NTNCs supply water to the same 25 people at least 60 days per year, but not year-round. Typical NTNCs include schools, daycares, industries, etc.
- Recommendation** **No action.**
- 40. Comment** **The word “contaminant” is used many times throughout this document, but it is never defined.**
- Discussion This is a good point, though the definition will need to be quite vague.
- Recommendation** **The word “contaminant” will be defined as, “any physical, chemical, biological, or radiological substance or matter in water,” according to Chapter 40 of 567 Iowa Administrative Code.**
- 41. Comment** **What if, after the assessment is complete, a hog confinement wants to locate within my source water protection area? This will raise our risk levels, but what can we really do about it?**
- Discussion Most water supplies do not have zoning authority, but municipalities or counties do. By working with the zoning authority, it might be possible to prevent a new hog confinement from locating within a supply’s source water protection area. Community involvement could be helpful in persuading the zoning authority that it is not in the best interest of the community’s future to locate an animal confinement within the source water protection area.
- Recommendation** **No action.**
- 42. Comment** **It is my understanding that there is currently no money available to help communities with developing source water protection plans. Is this correct?**
- Discussion There are limited funds available through technical assistance. IDNR has contracted with the Iowa Rural Water Association to provide assistance to 40 systems in preparing wellhead protection plans over the next two years. Additional funds are available in the form of loans to systems desiring to purchase land or prepare source water protection programs for their communities.
- Recommendation** **No action.**

- 43. Comment** **What is the average cost of protecting a public water supply?**
- Discussion The cost of protecting a public water supply will vary with the type of source water, the vulnerability of the source, the types of potential contaminant sources, etc. It is really not possible to estimate the cost without knowing specific details about the system.
- Recommendation** **No action.**
-
- 44. Comment** **Agricultural chemical sources are getting some mention in this document. If chemicals are applied according to package directions (which should be regulated by some federal entity), it seems that we are allowing local communities to regulate beyond what the federal government regulates. It's a dilemma for the agricultural producer to put chemicals on according to label directions, and then be blamed for using them excessively. This seems to put agricultural producers at risk.**
- Discussion It is unlikely that application rates take into consideration all of the possible environmental factors that might cause chemicals to leach into groundwater supplies. The producer may be applying agricultural chemicals at a rate most beneficial to agriculture without realizing the potential implications this might have on the community water supply. IDNR would encourage water systems to work with agricultural producers on this issue if their water supply is at risk to contamination from agricultural chemicals. The producer is still a private landowner, and under no obligation to follow stricter application rates than required by the package label.
- Recommendation** **No action.**
-
- 45. Comment** **The number of hog confinements is increasing all the time, but with everyone in someone's watershed, it seems that it will be impossible to site confinements anywhere! We have to be careful not to drive the agricultural industry out of this state.**
- Discussion Iowa is heavily influenced by the agricultural industry. This plan does not suggest that hog confinements be eliminated from the state, only that careful planning should be used to site these operations in the most beneficial location for all concerned.
- Recommendation** **No action.**
-
- 46. Comment** **It seems that a lot of programs proposed by IDNR begin as voluntary, but quickly progress to mandatory programs. I am suspicious that source water protection planning will become a requirement that will cost the systems money.**

Discussion At this time, source water protection planning will be performed on a voluntary basis. Until such time that the EPA requires it, IDNR will treat this as a voluntary program.

Recommendation No action.

47. Comment Do chemical dealers pay for any of the costs of source water protection?

Discussion There is a tax assessed on chemical dealers. The tax revenue is then placed in the state groundwater fund, which is to be used for general groundwater monitoring around the state.

Recommendation No action.

48. Comment I represent a small subdivision. We received a survey form from GSB, asking us to verify the locations of our well, distribution system, etc., but there were no landmarks on the map, and I couldn't even locate my wells on the map. Eventually, I got a Department of Transportation map and put my well locations on that. I submitted it, but never heard back, and now I'm worried that when my assessment arrives, it won't be correct.

Discussion If there is any problem with the assessment you receive, please contact us and let us know so that we can correct it. Every effort is being made to verify information prior to completion of the assessment, but there will be some errors, and IDNR will rely on the water supplies to check over the assessment and inform us of any errors.

Recommendation No action.

49. Comment It seems beyond comprehension that IDNR is promoting a source water protection plan when Linn County is about to build a landfill on the banks of the Cedar River.

Discussion This has been a highly publicized issue over the past few months. None of the IDNR staff here tonight is familiar enough with landfill permitting procedure to discuss the issue.

Recommendation No action.

Written comments

50. Comment More needs to be said about the goals of this program and its voluntary nature. A statement like the following may be beneficial:

The intent of this program is to 1) develop a working knowledge of all potential sources of contamination affecting water sources in the state, and 2) provide assistance to local governments in establishing guidelines for the

purpose of minimizing the risk of contaminating public water supplies. These guidelines may be completely voluntary or mandated in the form of local zoning ordinances. Therefore, although initiated at the state level, this program will ultimately be put into practice at the local level where individuals can help shape the methods by which source water protection is implemented in their community.

Recommendation This statement, or a similar statement, will be added to the plan introduction.

51. Comment Suggested changes to the format of the document.

Recommendation These changes will be implemented on page four of the plan.

52. Comment Pursuant to the Safe Drinking Water Act § 1428(b), to the maximum extent possible, each state shall establish procedures, including but not limited to the establishment of technical and citizens advisory committees. This is designed to encourage the public to participate in developing the protection program. However, on page three of the proposed strategy, public participation is not mentioned in the list of elements for the plan. Des Moines Water Works (DMWW) strongly believes that public participation should be added as one of the required elements of the program. While the department does include “Distribution of assessment results to the public,” we do not feel this alone satisfies the public participation intent section of the Act.

Discussion A decision was made to use the technical and citizens advisory group, followed by public hearings, to fulfill the public participation requirement of the Safe Drinking Water Act. Each state is required to show how public participation was obtained during the development of the state plan, according to EPA Guidance.

Recommendation Add a section on page 19 of the plan to show how the state fulfilled the requirements for public participation as required by the Safe Drinking Water Act.

53. Comment In chapter one, page two of the Environmental Protection Agency’s State Source Water Assessment and Protection Programs Guidance Manual (Manual), the goal stated that “by the year 2005, 60 percent of the population served by community water systems will receive their water from systems with SWP programs in place.” We refer you to page eighteen of the department’s proposed strategy where the plan misquotes the EPA by stating that the goal is only “50 percent.” DMWW suggests that the Iowa Department of Natural Resources (Department) correct the plan to conform to the EPA guidelines.

Recommendation Make corrections as appropriate.

54. Comment On page four, in the second paragraph, the plan states that “Phase 2 delineations for surface water systems might include such things as delineating beyond state boundaries or dividing the watershed into subwatersheds for the purpose of prioritizing local protection decisions.” DMWW believes that the department should encourage, to the extent possible, delineation beyond state boundaries in Phase 1. Performing delineations beyond state boundaries in Phase 1 would be fiscally responsible given the fact that delineations within the state boundaries are being performed. Also, performing delineations beyond state boundaries might locate possible sources of contaminants, which would not be detected without delineation beyond the state boundaries.

Discussion During technical and citizen advisory group meetings, this topic was discussed at length. It was decided that since IDNR has no jurisdiction over source water in other states, systems would be encouraged to work with the appropriate parties in other states without the involvement of IDNR. IDNR will assist systems in working with other states, if assistance is requested.

Recommendation Add the following sentences on page 6 of the plan:

Supplies using inter-state groundwater sources will be encouraged to complete source water protection plans using available resources and assistance from adjoining landowners, regardless of state boundaries. The IDNR intends to participate in interstate partnerships concerning interstate source waters at some point in the future, and will provide assistance to supplies utilizing source waters originating in or affected by states other than Iowa at that time.

55. Comment On page five, in the second paragraph, the plan begins to explain time of travel estimations. For clarity purposes, the definition of time of travel estimations should precede any explanation of what time of travel estimations attempt to do. Therefore, we suggest that the third and fourth sentences be reversed.

Recommendation Make correction as appropriate.

56. Comment Throughout the plan there are references to the contents of Phase 2. The Phase 2 discussion in the plan leads to reader confusion about whether Phase 2 is voluntary or mandatory. We suggest that the department include diagrams detailing the elements of Phase 1 and Phase 2 programs. DMWW has developed diagrams that assist in determining the contents of each program. (See attachments A and B).

Recommendation Language should be added throughout the plan to indicate that all aspects of the source water protection program are voluntary with respect to the public water supplies. In addition, the difference between Phase 1 and Phase 2 should be clarified.

- 57. Comment** On page ten, second paragraph, the plan states that “Existing hydrogeologic and land-use data will be used...” It is unclear whose data it is that will be used for this purpose. DMWW suggests that the Department include examples of the organizations that produce this data.
- Discussion** The existing hydrogeologic and land-use data that will be used are contained in the IDNR Geologic Survey Bureau databases.
- Recommendation** Add a statement to this effect to page 10.
- 58. Comment** On page 13, the first paragraph states that there will be a local source water protection planning committee. However, the plan does not include any additional information about this committee, its membership, responsibilities, or functions. DMWW suggests that the plan include guidance for the development and implementation of this committee.
- Recommendation** Add explanatory statement about the local source water protection planning committee, its membership, responsibilities and functions in the first part of the plan.
- 59. Comment** On page 13, the second paragraph states that “The susceptible area of the surface water component of the source will be determined using the 72-hour time of travel distance upstream of the surface water area of influence, and a 1,320 foot (1/4 mile) buffer zone.” DMWW suggests that discussion be continued in the report that explains the scientific relationship and basis for these distances. If there is no scientific basis, then distances should be chosen which have a scientific relationship to times of travel and buffer zones.
- Discussion** The 72-hour time of travel distance and 1,320 foot buffer zone were decided upon by a majority of states in the early stages of source water program development. It was felt that this would provide a measure of protection without adding excessive data to the contaminant source inventories for surface water systems. IDNR has asked EPA on a number of occasions to provide reasoning for not allowing the 72-hour time of travel, 1,320 foot buffer zone, and since none was provided, it was decided to proceed in this direction since other states were in agreement.
- Recommendation** No action

Source Water Assessment and Protection
Public Meeting Attendees

Name	Affiliation	Occupation	Telephone	Address
Karen Nachtman	Iowa Association of Municipal Utilities	Water Services Coordinator	515/289-1999	1735 NE 70 th Ave., Ankeny, IA 50021
Aaron Andersen	City of Panora	City Administrator	55/755-2164	Box 98, Panora, IA 50216
Marlys Curry	City of Pilot Mound	City Clerk	515/353-4383	465 H. Ave., Pilot Mound, IA 50223
Judy Bennett	City of Pilot Mound	Water Operator	515/353-4340	PO Box 2, Pilot Mound, IA 50223
Paul D. Jones	City of Montezuma	Water Operator	515/623-2121	Box 39, Montezuma, IA 50171
Gary L. Hensley	City of Mt. Ayr	Superintendent	515/464-3806	PO Box 482, Mt. Ayr, IA 50854
Mike Fischer	City of Madrid	Water Operator	515/795-3930	304 S. Water, Madrid, IA 50156
Mark Ackelson	Iowa Natural Heritage Foundation	Non-Profit Conservation	515/288-1846	444 Insurance Exchange Bldg, Des Moines, IA 50309
Sue Cosner	Des Moines Water Works	Director	515/323-6208	2201 Valley Dr., Des Moines, IA
Brooke Timmons	Des Moines Water Works	Public Affairs	515/283-8706	2201 Valley Dr., Des Moines, IA
Paul Zeph	Iowa Audubon	Executive Director	515/267-0701	PO Box 71174, Des Moines, IA 50325
Norville Huster	City of New Virginia	Council Member, Fire Chief	515/449-3672	PO Box 203, New Virginia, IA 50210
Richard Long	City of Alleman	Water Superintendent	515/685-3666	PO Box 71, Alleman, IA 50007
Anthony J. Scaglione	City of Norwalk	Laborer	515/981-0228	705 North Avenue, Norwalk, IA

Source Water Assessment and Protection
Public Meeting Attendees

Name	Affiliation	Occupation	Telephone	Address
Dale Behrens	Humboldt Water Department	Superintendent	515/332-2667	29 Fifth Street South, Humboldt, IA 50548
Ron Streck	Kiron Water Supply	Superintendent	712/675-4700	107 Lime Street, Kiron, IA 51448
Tracy Nelson	City of Salix	Superintendent	712/946-7083	801 Poplar, Salix, IA 51052
Kenny Nepple	City of Vail	Superintendent	712/677-2781	3451 L. Ave., Vail, IA 51465
Robert Beyerink	City of Westside	Superintendent	712/677-2791	Box 246, Vail, IA 51465
Stewart D. Jessen	City of Linn Grove	Superintendent	712/296-3931	211 W. High St., Linn Grove, IA 51033
Jeff Triplett	Calumet	Assistant Superintendent	712/446-3860	Box 112, Calumet, IA 51009
Curtis Dean	Spencer Municipal Utilities	Information Director	712/262-3027	PO Box 222, Spencer, IA 51301
Russ Sandberg	Rinard Public Water	Mayor	515/467-5615	360 Crooks Ave., Rinard, IA 50587
Donald Dawson	City of Paullina	Clerk/Administrator	712/448-3428	PO Box 239, Paullina, IA 51046
Ronald Chapman	City of Paullina	Superintendent of Utilities	712/448-3721	PO Box 239, Paullina, IA 51046
Rob Burton	PSG/Aqua Alliance, Storm Lake	Plant Manager	712/732-8031	1234 630 th St., Storm Lake, IA 50588
Ken Beyer	Rock Valley Rural Water	Manager	712/476-5243	1623 13 th St., Rock Valley, IA

Source Water Assessment and Protection
Public Meeting Attendees

Name	Affiliation	Occupation	Telephone	Address
Dewey M. Nielsen	Sleepy Hollow Enterprises	Campground/Mobile Home Park Manager	319/628-4900	3340 Blackhawk Ave. NW, Oxford, IA 52322
Grace Mueller	Twin Ridge Water System	Owner		10464 Key West Dr., Dubuque, IA 52003
Ray Mueller	Twin Ridge Water System	Owner		10464 Key West Dr., Dubuque, IA 52003
Nate Hopkins	Hawkeye Fly Fishing Association		319/338-8262	23 Durham Ct., Iowa City, IA 52240
Gary Kruse	Hawkeye Fly Fishing Association		319/582-9461	3175 Kaufmann Ave., Dubuque, IA 52001
Gary Lindley	Hilltop Subdivision #1		319/393-5669	2282 North Hilltop Drive, Muscatine, IA 52761-9501
Thomas Moore	Brittany Estates		319/393-5669	3092 Brittany Circle, Cedar Rapids, IA 52411
John Carroll	Iowa Army Ammunition Plant		319/753-7295	Middletown, IA
Dean Sweezer	Denmark Water Company		319/528-4381	PO Box 95, Denmark, IA 52624
Dave Machacek	Iowa Farm Bureau	Farmer	319/842-2224	4414 N. Alburnett Road, Alburnett, IA 52202
Tom Noth	Cedar Rapids Water Department	Manager of Operations	319/286-5975	761 J Ave NE, Cedar Rapids, IA 52402
Jerry Brogan	Coralville Lake Terrace	Contractor	319/626-6271	3453 Forest Dr. NE, North Liberty, IA 52313
Don Lund	Hawkeye Fly Fishing Association		319/683-2864	Iowa City, IA
Larry Niemann	Saints Avenue Apartments	Realtor	319/984-5028	Waverly, IA 50677

Source Water Assessment and Protection
Public Meeting Attendees

Name	Affiliation	Occupation	Telephone	Address
Jerry Anderson	Iowa Farm Bureau	Regional Manager	319/723-4251	1079 160 th , Nichols, IA 52766
Patrick O'Shaughnessy	University of Iowa	Professor	319/335-4202	180 IREH
Scott Slee	University of Iowa Water Plant	Water Treatment	319/335-6245	Iowa City
David McClain	University of Iowa Water Plant	Water Treatment	319/335-5990	Iowa City
Les Osborne	Western Hills Estates	Manager	319/645-2662	Coralville
Joel Mohr	Iowa-American Water Company	Supervisor of Water Treatment	319/322-8814	PO Box 979, Davenport, IA 52805
Laurie Bryant	Westmore Water Association	Manager	319/381-1206	15945 106 th Ave., Davenport, IA 52804
L.D. McMullen (written comments)	Des Moines Water Works	CEO and General Manager	515/283-8755	2201 Valley Drive, Des Moines, IA 50321-1190

Telephone Requests for Copy of Iowa SWAP

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Alicia Stone	
Neal Kuehl	Kuehl & Payer, Ltd., 1725 N. Lake Ave., Storm Lake, IA 50588
David Rhoten	PO Box 189, Missouri Valley, IA 51555-0189
City of Treynor	PO Box 234, Treynor, IA 51575
Bill Dykstra	City of Williams, PO Box 7, Williams, IA 50271
City of Ryan	PO Box 40, Ryan, IA 52330
Jeff Dryden	112 E. Fifth St., Carroll, IA 51401
City of Charter Oak	453 Railroad St., Charter Oak, IA 51439
John Asdor	Coon Rapids Municipal Utilities, 123 Third Ave., Coon Rapids, IA 50058
Kim Jaeger	Quality Water, 17448 John Deere Road, Dubuque, IA 52001
Dave Paulis	Decorah Water Department, PO Box 138, Decorah, IA 52101
Jim Lawton	City of Aplington, 409 10 th St., Aplington, IA 50604
Butch Niebuhr	PO Box 604, Perry, IA 50220
Tony Hudson	Central Iowa Water Association, 2051 S. 24 th Ave. W., Newton, IA 50208
Michael Hames	21595 McCarty Creek Dr., LeClaire, IA 52753
Rick Robinson	Iowa Farm Bureau, 5400 University Ave., West Des Moines, IA 50266
Lyle Herrold	PO Box 102, Cambridge, IA 50046
Randy Bennett	City of Minburn, Box 213, Minburn, IA 50167

Telephone Requests for Copy of Iowa SWAP

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City of Dyke	PO Box 160, Dyke, IA 50624
Larry Reif	11941 Locust St., Sperry, IA 52650
Francis Kessel	101 Allamakee St., Waukon, IA 52172
Tim Puls	17044 Mountain Ridge, Dubuque, IA 52002
James L. Smith	Green Acres MHP, 11912 Hwy 99, Burlington, IA 52601
Dennis Boruff	City of Carson, PO Box 128, Carson, IA 51525
Ron Brown	1473 National Ave., Fort Dodge, IA 50501
Tim Wilson	City of Wahpeton, 1201 Dakota Dr., Milford, IA 51351
Gary Lowe	City of Orient, PO Box 116, Orient, IA 50858
Dean Olsen	Guthrie Center Utilities, 102 N. First St., Box 100, Guthrie Center, IA 50115
City of Neola	PO Box 67, Neola, IA 51559-0067
Jerry Reuvers	City of Orange City, 125 Central Ave SE, Orange City, IA 51041
Marty Braster	Chariton Valley RC & D, 19229 Hwy 5, Centerville, IA 52544-8922
Kevin Gowling	Page 1 RWD, PO Box 177, Clarinda, IA 51632
Penny Rule	4600 Plumberry Rd., Ely, IA 52227
Curtis Baird	15648 Harbor Dr., Spirit Lake, IA 51360
Kenneth Oberman	La Motte Water Supply, PO Box 31, La Motte, IA 52054
Judy Anderson-Bruner	4616 Honey Grove Rd., Ely, IA 52227
Rod Boshart	Cedar Rapids Gazette, Des Moines Office

Telephone Requests for Copy of Iowa SWAP

Name	Address
Jim Wubbena	312 Main St., Box H, Bristowe, IA 50611
Tim Donnelly	City of Independence, 1000 12 th St NE, Independence, IA 50644
City of Wellman	PO Box 129, Wellman, IA 52356
La Porte City Utilities	City of La Porte City, Box 142, La Porte City, IA 50651
City of Center Point	200 Franklin St., Center Point, IA 52213
Hickory Hills Subdivision	8 Timberline Dr., Blue Grass, IA 52726
City of Fenton	Box 200, Fenton, IA 50539
City of Superior	PO Box 107, Superior, IA 51363
People's Service	409 Old Dubuque Road, Anamosa, IA 52205
Jerome Neppel	3206 Agronomy Hall, Iowa State University, Ames, IA 50011